

### **REMARKS**

Claims 1-11 were pending in this application. Claims 1-11 have been canceled without prejudice or disclaimer, and new Claims 12-20 have been added. Hence, claims 12-20 remain pending. Support for the new claims may be found throughout the present specification and original claims. As such, it is submitted that no new matter enters by way of the present amendment. Therefore, entry of the present amendment and reconsideration of the subject application as amended is respectfully requested.

#### **I. CLAIM OBJECTIONS**

Claims 9 and 10 are objected to as allegedly being of improper dependent form. While not agreeing with the objection, Applicants have canceled claims 1-11 without prejudice or disclaimer. As such, this objection is now moot, and withdrawal of the objection is respectfully requested.

#### **II. DOUBLE PATENTING**

Claim 10 has also been objected to under 37 C.F.R. § 1.75 as allegedly being a substantial duplicate of claim 9. Again, while not agreeing with the objection, Applicants have canceled claims 1-11 without prejudice or disclaimer. As such, this objection is now moot, and withdrawal of the objection is respectfully requested.

#### **III. PRIOR ART REJECTIONS UNDER 35 U.S.C. § 102 AND 35 U.S.C. § 103**

Claims 1-4 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Kudinov et al. Again, while not agreeing with the rejection, Applicants have canceled claims 1-11 without prejudice or disclaimer. As such, this rejection is now moot, and withdrawal of the rejection is respectfully requested.

Claims 1-6 and 9-11 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the admitted prior art of the instant disclosure in view of Kudinov et al. Initially, Applicants respectfully traverse the Examiner's characterization of the "admitted prior art" of the invention. It is submitted that nowhere is it admitted that "it was known and desirable in the art at the time the invention was made to cool trunnion rings on their inner surfaces between the trunnion ring and the converter body of an oxygen converter." *Office*

*Action mailed August 2, 2005* at page 4. As discussed in the previous Response filed June 16, 2005, it is respectfully submitted that such statements are a mischaracterization of the background section of the present application. Paragraph [0003] of the application states:

In the art, various approaches have been taken to reduce the effects of the thermal loads and stresses on the converter vessel and/or the trunnion ring. Known approaches include attaching a cooling system directly to the vessel; running cooling fluid **through the interior cavities of the trunnion ring**; and incorporating a fluid or a vapor based cooling system **into the interior of the trunnion ring**. (Paragraph 3 of the application, as originally filed, emphasis added)

In any event, while not agreeing with the rejection, Applicants have canceled claims 1-11 without prejudice or disclaimer. As such, this rejection is now moot, and withdrawal of the rejection is respectfully requested.

#### IV. NEW CLAIMS

New independent Claim 12 relates to a method for cooling a trunnion ring, the trunnion ring supporting a vessel in a metallurgical converter and having a surface adjacent the vessel and being in a spaced relationship from the vessel. The method comprises: coupling one or more cooling panels to cover at least a portion of the surface of the trunnion ring adjacent the vessel; supplying a coolant at an inlet for at least one of said cooling panels; circulating said coolant in said cooling panel; and said coolant serving to cool the trunnion ring by absorbing heat radiated from said vessel. In accordance with the claimed methods, the cooling panels are mounted at the surface of the trunnion ring and are positioned adjacent the vessel.

It is respectfully submitted that Kudinov fails to disclose or teach the features as defined in independent Claim 12. In contrast to the method presently claimed, Kudinov teaches cooling plates for mounting inside a furnace chamber. Kudinov is completely silent with regard to cooling plates designed to be coupled to the exterior of a vessel, much less a cooling plate designed to be coupled to cover at least a portion of the surface of a trunnion ring adjacent a vessel supported by the trunnion ring.

It is further submitted that Kudinov explicitly teaches away from the present invention because Kudinov describes cooling plates that are designed to be mounted in the furnace chamber. The openings 2 are filled with a refractory material 3. (Column 2, ll. 24-32)

As such, the cooling plates disclosed by Kudinov are unsuitable to be coupled to cover at least a portion of the surface of the trunnion ring adjacent a vessel, as presently claimed. In contrast to the Examiner's assertion that Kudinov teaches "improved cooling panels for cooling metallurgical vessels" (Page 4 of the *Office Action mailed August 2, 2005*), the sole purpose disclosed by Kudinov for the cooling plate is in a metallurgical furnace (e.g., "blast furnaces") (Column 2, ll. 52-53). It is submitted that in view of these differences, there is no motivation or suggestion for one skilled in the art to modify the teaches of Kudinov to arrive at the present invention.

Because Kudinov does not teach or suggest each and every feature as defined in independent Claim 12, it is submitted that independent Claim 12, and the claims dependent therefrom, are patentable over Kudinov and the art of record.

### CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

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